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"The Book of Medicine" by Asaph

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IN THIS PAPER on Asaph the Physician,* I shall show the source from which the author derived his wisdom and what he added from his own store of knowledge and from the medical folk lore of his people.

Asaph's first source of information was the work of Hippocrates of the ancient Alexandrian School. Asaph also delved into the medical archives of Greece, Chaldea, India and Egypt and the medical lore of Ethiopia (Abyssinia and Arabia before the Islamic era). His Hebrew sources took him back to the Biblical period of the Judges and the books of the Talmud. To all these, he added much of his own knowledge.

Of particular interest are Asaph's personal contributions to medicine. He promulgated many vital principles of medical ethics and physical hygiene. As a native Palestinian, it is to be expected that most of his observations would take into account the flora, the climate and people of the Holy Land. His language is the Hebrew of the Mishnah or the early Midrashim, supplemented occasionally by medical terms from other languages like the Aramaic, Greek, Latin, Persian. Arabic was not yet spoken in Palestine during Asaph's time, so one finds but few Arabic terms except for some of the drugs and merchandise brought into the country by Islamic caravans from time to time.

Asaph's knowledge of compound-medicines came to him from

* Asaph the Physician, is known through his book, "Sefer Refuah," *The Book of Medicine*. This is considered the oldest medical treatise in Hebrew. The date of the book is not well-established historically but it is placed approximately in the ninth or tenth century.

Dr. Muntner, of Israel, has made an intensive study of the various manuscripts of the "Sefer Refuah," scattered throughout the world, in the libraries of Florence, Paris, Munich, Vienna and London. He has unearthed a great deal of interesting medical material of historic value. Due to technical difficulties the paper had to be abridged.—Ed.

the Greek world as he explains in his foreword. The Greeks, in turn, obtained their knowledge from Babylonia, Egypt, Sidon and the towns and regions off the East coast of the Mediterranean. The Egyptians received their information from the generations that preceded them and so on, "without beginning and without end," thus corroborating the accepted opinion that medical science like other sciences developed gradually and was not the creation of a single people.

THERAPEUTIC SYSTEM

Asaph's therapeutic principles contain many facts of interest. He believed in counteracting disease which is a departure from the widely accepted idea of his time that health depended on the correct combination of the four elements in the body (earth, water, fire, air), and the four humors (cold, heat, moisture, dryness). Asaph based his prophylactic medicine on the physical treatment (dietetics) through proper nutrition and the right quantities adapted to the needs of children and adults at the various seasons of the year. He advised special drinks and barley gruel for malaria and other diseases. He drew many parallels to the rules of diet and hygiene enjoined in the Talmud.

Asaph advocated gymnastics, baths, massage, sun irradiation, fresh air, pure water and drinks in accordance with local conditions and seasons. He advised careful selection of meat, bread, milk and vegetables for consumption. His therapy also included a great deal of general advice on other matters: intercourse with women, sucking cups, phlebotomy, correct breathing and rhythm. Rhythm of the body, he said, was adapted to that of the soul, making for complete harmony of life.

Asaph believed that before the physician undertook to treat the disease, he should determine the irritant that caused it. He should examine the local conditions, the air, and other conditions: "It befits the sage when he sees the man, to know and discern the signs of the diseases and the pains according to the deviation of the four elements and to arrange the therapy so that he may be strengthened. And it is befitting to the man to be careful and to know the signs of the diseases according to their periods, to heal their infections according to their periods and also to cure with a selection of medicines which are suitable for healing." (Munich Manuscript, folio 7, Venetianer 117).



DRUGS

Asaph employed drugs composed of plant, mineral and animal substances, given singly (*simplicia*) and in mixtures (*compounds*). It would be impossible to enumerate all the drugs he mentions in this limited space, so we shall mention but a few to show that he used not only locally-made medicines but those brought from distant lands, India, Persia, Arabia, Armenia (Asia Minor) and the Islands of the eastern Mediterranean. Of the vegetative drugs he was familiar with opium (*Maq-Meconian*), castor tree *Pentaphyllon*, *Shikhrona*, Desert Lilly and other plants mentioned in the Talmud.

The drugs were administered in all forms known to us, except injections, liquids, tablets, pills, gargles, drops for the eyes and ears or "to influence the nostrils," inhalations, thread for laryngeal cartilage, enemas (*clysms*), oil embrocations, "liniment for the bath to improve the smell and poultices to soften, to warm, to protect."

ANATOMY

It would be wrong to censure Asaph for his lack of anatomical knowledge. He was a son of his epoch and a student of the Hippocratic school of medicine in Alexandria, which was extremely ignorant of anatomy. Asaph talks of the "rooms of the brain" (*ventriculi cerebri*), and of the heart as the source of the soul. Supported by the Scriptures, he maintains that "the blood is the soul and the veins are the canals to carry the soul in the blood of all flesh."

In accordance with the disciples of the pneumatic school, Asaph says, that, "the black bile is spirit and not body." He speaks of the influence of the various winds and the functions of the senses within the body. In talking of the miracles of creation, he says, "the spirit creates all," and like Mar Samuel Jarchainai, he maintains that most of the diseases come from the spirit. He does not, however, explain the essence of *pneuma*.

All the figures Asaph uses for veins, bones, the duration of sickness and the crises occurring on certain days, are based on the maxim of harmony promulgated by Pathagoras whose theories came from Babylonia, Persia and Egypt. No figure is intended to be exact, but is used as a symbol for good, for bad, or for the rules and essence of life unknown to us. If the figures are

looked at in this light they may have some meaning but most of them are as meaningless to us as the hieroglyphics of the Egyptians were to the illiterate.

OTHER SUBJECTS

Asaph touches upon embryology in his discussion of the beginning of the creation of "man in the womb." He also includes some pathology which follows the theory of the four humors, a dissertation on hygiene, pharmacology, ophthalmology and prognosis and diagnosis. He makes a plea for diagnosis made through the use of all the senses at the disposal of the physician. Especially painstaking is the examination he recommends, which includes every part of the patient's body, his physical and mental reactions, his sleep and waking, his laughter and tears, his hunger and thirst, his moods, his soul, his dreams. Whole treatises are devoted to the discussion of the urine, the pulse and the diagnosis of various fevers.

EARLIEST HEBREW TRANSLATION OF THE APHORISMS OF HIPPOCRATES

The Book of Asaph includes a translation of nearly all the chapters (Aphorisms) of Hippocrates. This is the earliest Hebrew translation and probably the very first translation in any language. It is even possible that material from the Pharmaceuticals of Hippocrates which is recorded in ancient literature and was later lost, may be concealed among these pages.

Surgery and obstetrics are not mentioned in the entire book.

ASAPH'S SPECIAL CONTRIBUTION

Although, as stated previously, Asaph knew little anatomy, he was a great physician and deserves to be remembered by the generations who followed him. Asaph has given us vital material on the physician's art and morals that challenges our thinking. One finds ethical precepts on almost every page of his book but they appear in their most concentrated form in his *Medicina Pauperum*, in his *Covenant with his Disciples*, in his *General Foreword* and in his *Foreword to the Commentary on the Aphorisms of Hippocrates*.

THE WHEAT AND THE CHAFF

Scattered among his gems of medical literature and his many evidences of progressive thinking, one finds many misconceptions characteristic of the age in which he lived. In that respect Asaph does not differ greatly from our most recent writers. If we open a medical treatise or even a medical textbook written a generation ago, we find many facts that are now obsolete and but a few classic papers that can stand the test of time.

I should like to quote some of the medical aphorisms and interesting observations which I feel express Asaph's personality. Like every other investigator of fundamental truths, Asaph learned from experience and did not rely on the information he found in books without substantiating it with knowledge from other sources.

Worthy of special mention is Asaph's admonition to his disciples to heal the poor and feeble without money, for a man who loves money is like one who runs after gifts and gifts "doth blind the eyes of the wise."

In his lectures on diagnosis, Asaph acquaints his students with differential diagnosis, "to distinguish between pains of the kidneys and the large intestines." In another passage he says, "colic when it is provoked deceives many sages and they say this is a pain of the intestine called colon." He mentions cases of intestines perforated by worms which lead to the patient's death through tetanus. He also advises against eating in excess and excessive sexual intercourse.

Diet for patients suffering from malaria is explained in meticulous detail. Barley gruel is given to all malaria patients. As a true Oriental, Asaph gives some of his medical precepts in the form of allegories. "There are many kinds of malaria; most food will burn it up for like a burning fire so is malaria. If you withdraw wood and straw from the fire it will be extinguished for lack of wood." He considers liquids necessary for the maintenance of life. He knows that the bones are nurtured through blood vessels which are in the bone marrow.

Asaph's reflections on the circulation of the blood are interesting:

"Pulse beats," he says, "are the spirit of life and its source is the heart; they spread all through the body. And from the extreme parts of the body they return to the heart like water

which is driven by the wind and the waves come and go from the pulse which is in the vein that starts from the heart (aorta) to the extreme parts of the body. Outwardbound they are warm and when they return from the extreme parts of the body to the heart, they come empty. For it is like a wing which is moved and goes and comes with the wind. For when the wind goes and comes from the pulse that starts from the heart, it returns to the heart. And this we found in the veins of men which are canals and deep vessels. Every vein is halved lengthwise (vein and artery) for there are two veins one upon the other. The lower is thin without blood, for the pneuma of the body is in it. And the upper one is full of blood and both beat each other and both start from the heart and their beat touches the body gently to its extreme parts and from there the pulse returns to the heart."

In the same manner, he speaks of reason, understanding, intelligence. "The seat of the spirit is the head, of intelligence the heart and the seat of affection is in the darkness of the body." Our autonomic-vegetative nervous system is apparently what he refers to, in the "darkness of the body."

As mentioned above, there is chaff among the wheat. A few examples follow: "The right kidney is warm, the left kidney is cold." "Fear comes from the Wind of Ghosts who hide in the eyes of the man when he looks at them suddenly." Of black bile, he says: "Black bile is like ash, like clay of the Creator at the time when red bitterness which resembles the fire, dominates. They dry at once and become like dead."

All in all, however, Asaph left us a vast treasury of information, a combination of fascinating folklorist wisdom and sound medical observation against a background of lofty medical principles and high moral character.

